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SOURCE Documentary as indicated. (Information specifically requested.)

RECENTLY PUBLISHED RESEARCH OF THE  
MOLOTOV MEDICAL INSTITUTE, USSR

"Reaction on Feather-Forming Tissues as a Result of Change of Function of Thyroid Iron Caused by Injection of Thio-uracil," A. A. Voytkovich, I. A. Youtin, Chair of Gen Biol, Inst Med in Molotov, Alma-Ata, 3 pp

"Bull Ekspier Biol i Med" Vol 26, No 3, Sep 1947

Reports research conducted to establish the fact that in vertebrates there is great relationship between the hormones of thyroid iron and the generation of new tissue. It was also noticed that this was particularly true in the case of birds and their ability to generate new feathers. It has been established that it is possible to determine the change of concentration of the thyroid hormone by careful investigation of the feathers of the birds. (23T71)

"Reaction of Bismuth Ion with Anilino Cobalt Dimethylglyoxime," S. I. Gusev, Molotov State Med Inst

"Zhur Priklad Khimii" Vol 18, 1945, pp 247-50

Composition of the Co complex was shown to be  $\text{Co}(\text{O}_2\text{N}_2\text{C}_2\text{Me}_2)_2 \cdot (\text{PhNH}_2)_4\text{Cl} \cdot 3\text{H}_2\text{O}$ . Treatment of the chloride with KI solution gave the corresponding iodide as

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slightly soluble, reddish-brown needles. Iodide treated with a solution containing Bi ions yielded a yellow turbidity or precipitate which is insoluble in water, AcOH, EtOH, and Et<sub>2</sub>O, soluble in acetone, ether, and excess KI solution. Precipitate has the composition Co(O<sub>2</sub>N<sub>2</sub>C<sub>2</sub>H<sub>2</sub>)<sub>2</sub> (PhNH<sub>2</sub>)<sub>4</sub>BiI<sub>4</sub>. Formation of the precipitate requires the presence of KI. Sensitivity of the reaction is about 0.01 mg per cc.

"Physiology and Pathology of the Secretory Function of the Small Intestine: IV. Secretion of Potassium and Calcium With the Intestinal Juice," R. I. Gavrilov, Med Inst Molotov

"Byull Eksper Biol i Med" Vol 20, No 7/8, 1945, pp 60-3

Evidence is presented to show that the intestinal juice plays a role in regulating the K and Ca content of the blood. The K and Ca content of the blood of dogs were 16.3-30.0 and 9.8-14.0 mg %, respectively. The corresponding concentrations in the intestinal juice were 16.2-36.4 and 9.8-14.0 mg%. The injection of 0.05 cc of 10% CaCl<sub>2</sub> per kg into the blood of a dog caused a decrease in the total amount of intestinal juice secreted; the Ca and K contents of the blood rose, but only the Ca content of the juice rose. The injection of 10 times this amount of CaCl<sub>2</sub> caused similar effects, but a much longer time was necessary for a return to normal.

"Physiology and Pathology of the Secretory Function of the Small Intestine: V. Secretion of Chlorine in the Intestinal Juice," R. I. Gavrilov, Med Inst, Molotov

"Byull Eksper Biol i Med" Vol 20, No 10/11, 1945, pp 54-7

Experiments are reported in which various amounts of 25% NaCl solution were introduced into dogs and the secretion of NaCl in the small intestine was measured. Data are also given on the amount of juice secreted and on the NaCl content of the blood. A greater rise in Cl occurred in the blood in the small intestine. Conclusion: The regulatory processes taking place on overloading with salt involve not deposition in the intestinal wall, but deposition in the intestinal cavity, followed by absorption and abundant excretion by the kidneys.

"Physiology and Pathology of the Secretory Function of the Small Intestine: VI. Secretion by the Intestinal Wall of Cholesterol, Bilirubin, and Bile Acids in Mechanical Icterus," R. I. Gavrilov, Med Inst, Molotov

"Byull Eksper Biol i Med" Vol 20, No 12, 1945, pp 54-6

Measurements were made of the Cholesterol (I) and bilirubin (II) contents of the serum and intestinal juice of jaundiced dogs. The I content of the intestinal juice

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of normal dogs was found to be 8-13 mg%. The secretion of I in the intestinal juice increased three times during mechanical icterus. At the height of the jaundice effect the content of I was increased four times. The II content of the serum rose to a maximum of 6.88 mg% at 17 days after the operation. This high level was maintained for 2 months, after which the level gradually fell to 2.16 mg%. The II content in the intestinal juice varied in a similar manner to the serum picture. Clinical significance of these data is discussed, and it is pointed out that another role of the intestinal juice in the regulation of blood chemistry has been shown.

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